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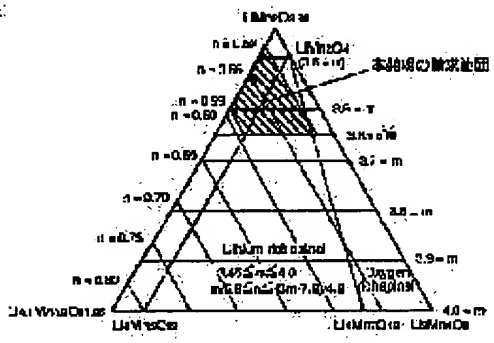
(54) LITHIUM MANGANESE COMPOUND OXIDE, ITS PRODUCTION AND ITS USE

(57)Abstract:
PROBLEM TO BE SOLVED: To produce a lithium manganese compound oxide for the positive electrode of a lithium cell.
SOLUTION: The lithium manganese compound oxide is a compd. consisting of Li, Mn and O, represented by the formula Li1+xMn2-yO4 (where $-0.01<x<0.15$ and $0<y<0.15$) and having a cubic spinel structure. The atomic ratio of Li to Mn is 0.52-0.59 and the average oxidation number of Mn is 3.45-3.65. The multiple oxide has 0.821-0.824 nm lattice constant, 60-180 nm crystallite diameter and 1.0-3.7 m2/g BET specific surface area, contains at least ≥3% primary particles having ≥1 μm particle diameter and has 1.0-15.0 μm median diameter on the particle size distribution curve measured by a laser diffraction scattering method, an aggregation index of 5-20 and ≥55% press molding density.



LiMnO2-Li2Mn4O9-Li4Mn5O12-Li4Mn5O12系三角ダイアグラムによる非化学量論組成のスピネル化合物の表示
(拡大図は詳細情報画面を見ます)

LEGAL STATUS

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